

Programming the TDFM-136 series radio in P25 Digital

June 30, 2022

1. Place radio into Digital mode (*THIS MUST BE DONE FIRST*)

- 1) Press
- 2) Press again until “D” appears in the flashing cursor.
- 3) Press

```
0 0 1          D 1 6 9 . 2 0 0 0 R x
Edit Mode (↑↓3, #*)
```

2. Enter receive and transmit frequencies

- 4) Press
- 5) Enter receive frequency
- 6) Press
- 7) Enter transmit frequency
- 8) Press

```
0 0 1          D 1 6 9 . 2 0 0 0 R
Edit Frequency (0-9, #*)
```

```
0 0 1          D 1 6 9 . 2 0 0 0 T
Edit Frequency (0-9, #*)
```

3. Edit TalkGroup (TalkG) and NAC codes

Determine if Talkgroups will be used. TalkGroups may or may not be used.

(*Talkgroups* are shown as a *four* character **\$12AB** HEX code or a *five* digit number **12345** Decimal code)

Receive NAC codes may or may not be used; however, transmit NAC codes are *always* used.

(*NAC codes* are shown as a *three* character **\$12A** HEX code or a *four* digit number **1234** Decimal code)

A. If Talkgroups will not be used

- 9) Press
- 10) Press again until “Rn” appears
- 11) Press
- 12) Enter the receive NAC code
- 13) Press *twice*
- 14) Press a third time to bypass transmit TalkGroup codes
- 15) Enter the transmit NAC code
- 16) Press

```
0 0 1          D 1 6 9 . 2 0 0 0 R n
Edit Sql Mode (↑↓9, #*)
```

```
0 0 1          D 1 6 9 . 2 0 0 0 R n
P 2 5 N A C :          $ 2 9 3
```

```
0 0 1          D 1 6 9 . 2 0 0 0 T g
P 2 5 N A C :          $ 2 9 3
```

B. If Talkgroups will be used

- 9) Press
- 10) Press again until “Rg” appears
- 11) Press
- 12) Enter the receive TalkGroup code
- 13) Press
- 14) Enter the receive NAC code
- 15) Press *twice*
- 16) Enter the transmit TalkGroup code
- 17) Press
- 18) Enter the transmit NAC code
- 19) Press

```
0 0 1          D 1 6 9 . 2 0 0 0 R g
Edit Sql Mode (↑↓9, #*)
```

```
0 0 1          D 1 6 9 . 2 0 0 0 R g
P 2 5 T a l k G r o u p :          $ 0 0 0 1
```

```
0 0 1          D 1 6 9 . 2 0 0 0 R g
P 2 5 N A C :          $ 2 9 3
```

```
0 0 1          D 1 6 9 . 2 0 0 0 T g
P 2 5 T a l k G r o u p :          $ 0 0 0 1
```

```
0 0 1          D 1 6 9 . 2 0 0 0 T g
P 2 5 N A C :          $ 2 9 3
```

C. If No receive TalkGroup and NAC codes will be used (digital equivalent of analog Rx)

- 9) Press
- 10) Press again until "Rm" appears
- 11) Press **twice**
- 12) Enter the transmit TalkGroup code
- 13) Press
- 14) Enter the transmit NAC code
- 15) Press

```
001          D169.2000 Rm
Edit Sql Mode (↑↓9, #*)
```

```
001          D169.2000 Tg
P25 TalkGroup: $0001
```

```
001          D169.2000 Tg
P25 NAC:      $293
```

4. If needing to toggle the radio to display either Hex or Decimal TalkGroup and NAC code formats

Example of a HEX code: (same information as Decimal)
(note "\$" sign)

Example of a Decimal code: (same information as HEX)
(note no letters or "\$")

- 1) Press **twice** (Level 3)
- 2) Press
- 3) Press until either Hex or Decimal is displayed
- 4) Press

```
001          n169.2000 Rx
GD 3 AirGuard n168.6250 Rx
```

```
3-3 Set Hex /Decimal Edit
Edit in: Hex
```

```
3-3 Set Hex /Decimal Edit
Edit in: Decimal
```

Note: There are "Decimal to HEX" Apps available that can also do this conversion

5. To review radio code settings for correct TalkGroup and NAC code information

(Cannot edit displayed information – view only)

- 1) Press **twice** (Level 3)
- 2) Press
- 3) In **upper left corner of display**: if

```
001          n169.2000 Rx
GD 3 AirGuard n168.6250 Rx
```

Rm appears: Skip. All receive information displayed is not active.

```
Rm: Tone Code TalkG NAC
10 69.3 25 $0001 $293
```

Rn appears: Only review receive information under NAC header. TalkG information not active.

```
Rn: Tone Code TalkG NAC
10 69.3 25 $0001 $293
```

Rg appears: Review both receive TalkG and NAC information under header.

```
Rg: Tone Code TalkG NAC
10 69.3 25 $0001 $293
```

- 4) Press
- 5) Review transmit information below TalkG and NAC header for correct information
- 6) Press

```
Tg: Tone Code TalkG NAC
69.3 25 $0001 $293
```

Note: Technisonic radios use a "\$" to indicate HEX. NAT (Cobham) radios use a "h" to indicate HEX.

Note: When *no TalkGroup or NAC is set* the default codes are TalkGroup \$0001 and NAC \$293.

Note: The codes to allow "receive all" is TalkGroup \$FFFF and NAC \$F7E (or Rm).

Copies of this sheet are available at: <https://www.nifc.gov/resources/NIICD/niicd-documents>